

## 1.0 EXECUTIVE SUMMARY

The U.S. Federal Regulations under the Clean Water Act (CWA) of 1972 require States to develop a list of impaired waters and the pollutants for which they are impaired, also known as the 303 (d) List. Subsequently, States must establish a watershed-based pollutant specific Total Maximum Daily Load (TMDL) to bring impaired water bodies into compliance with the water quality standards necessary for its beneficial uses. This TMDL is then incorporated as an amendment to the regional Basin Plan. The designated responsible jurisdictions and responsible agencies must then reduce their discharges to meet these waste load allocations according to a compliance schedule.

The Santa Monica Bay beaches were designated as impaired and included on California's 1998 CWA 303(d) list of impaired waters due to excessive amounts of coliform bacteria. The presence of high coliform bacteria concentrations in surface waters is an indication that water quality may not be sufficient to maintain the beneficial use of these waters for human body contact recreation (REC-1). The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) released a first draft of the Santa Monica Bay Beaches Bacterial TMDL (SMBBB TMDL) on November 9, 2001. Later, the Regional Board staff decided to bifurcate the SMBBB TMDL into two TMDLs, one for dry and one for wet weather. Both the SMBBB dry- and wet-weather TMDLs were approved by EPA in June 2003 and became effective on July 15, 2003.

The SMBBB TMDLs require responsible jurisdictional groups and responsible agencies within the Malibu Creek and Ballona Creek subwatersheds to achieve compliance with the TMDLs according to specified schedules<sup>1</sup>. Four years after the effective date of the TMDLs the Regional Board will re-open the TMDLs to reconsider certain provisions based on new data, some of which will be collected under this monitoring plan, including:

- the number of allowable winter dry-weather exceedance days;
- re-evaluation of the Arroyo Sequit Canyon and Leo Carrillo Beach reference system;
- estimated number of wet-weather exceedance days in the critical year at all beach locations, including the reference system(s); and
- final allowable wet-weather exceedance days for each beach location and their future adjustment.

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<sup>1</sup> According to the SMBBB TMDLs, responsible jurisdictions and agencies are defined as: (1) local agencies that are responsible for discharges from a publicly owned treatment works to the Santa Monica Bay watershed or directly to the Bay, (2) local agencies that are permittees or co-permittees on a municipal storm water permit [within the SMB Watershed Management Area], (3) local or state agencies that have jurisdiction over a beach adjacent to Santa Monica Bay, and (4) the California Department of Transportation pursuant to its storm water permit.

- the need for clarification or revision of the geometric mean compliance requirements

The TMDLs' compliance dates are as follows:

- summer dry-weather period: three years;
- winter dry-weather period: six years; and
- wet-weather period: up to 10 or up to 18 years, depending on whether an integrated water resources implementation approach is used.

Compliance dates are measured from the TMDLs' effective date of July 15, 2003.

### **Coordinated Shoreline Monitoring Plan Development**

This Coordinated Shoreline Monitoring Plan is developed by a Technical Steering Committee, which is co-chaired by the County and City of Los Angeles and consists of representatives from many of the TMDLs' responsible agencies. Valuable feedback is also generously provided by staff from the Regional Board, Heal the Bay, Santa Monica BayKeeper, and the Sanitation Districts of Los Angeles County (LACSD).

The plan is designed to comply with the monitoring requirements of both the dry- and wet-weather TMDLs by proposing a single Coordinated Shoreline Monitoring Plan, and to provide some of the data to support the re-evaluations that will be made when the TMDLs are re-considered in four years.

The TMDLs establish multi-part numeric targets based on three bacteriological analytical parameters: Total coliform density, fecal coliform density and enterococcus density, with density reported in bacteria counts per 100 milliliters of water sampled. These numerical targets have been set based on the Los Angeles Basin Plan objectives for body-contact recreation (REC-1) and are equivalent to the State bacteriological standards set pursuant to Assembly Bill 411.

### **Requirements of Coordinated Shoreline Monitoring Plan**

Both the dry- and wet-weather TMDLs require that, within 120 days of their respective effective dates, the responsible agencies submit a coordinated shoreline monitoring plan to be approved by the Regional Board's Executive Officer. The TMDLs prescribe criteria by which compliance monitoring locations are to be established, but the responsible agencies have the option of conducting either daily or weekly sampling. The TMDLs compliance monitoring sites are to be established as follows:

All existing monitoring sites, in their present locations or moved to the wave wash of a "major drain," are to become compliance monitoring locations. Existing sites are those shoreline locations monitored by the City of Los Angeles, County Sanitation

Districts of Los Angeles County, and the Los Angeles County Department of Health Services at the time of adoption of the TMDLs by the Regional Board. “Major drains” are defined as those publicly owned and observed to have persistent, measurable dry-weather flow

All major drains are to be considered for monitoring.

Subwatersheds without an existing shoreline monitoring location must have a new site added at the wave wash of any “major drain” or creek. If no major drain or fresh water creek exists, the new site is to be added at the midpoint of a beach listed in the TMDL.

### **Sampling Schedule in the Coordinated Shoreline Monitoring Plan**

The monitoring program will begin as soon as all Memorandums of Agreements have been executed between the City of Los Angeles and those agencies using the City’s services, but no later than November 1, 2004. Monthly updates on the progress of the Memorandum of Agreements will be provided to the Regional Board.

The proposed compliance monitoring program consists of 67 sampling sites monitored on a weekly basis. Fifty of the 67 sites are existing monitoring sites; the remaining 17 are newly added sites. All routine samples are scheduled to be collected on Mondays: 32 by the City of Los Angeles Bureau of Sanitation, Environmental Monitoring Division (EMD), 26 by the County of Los Angeles Department of Health Services (LACDHS), and nine by the Sanitation Districts of Los Angeles County.

In addition to the 67 monitoring sites, the proposed program also includes nine sites where routine dry-weather flow observations will be made. One year from the initiation of the monitoring program, the Regional Board will evaluate the accumulated flow observation data to determine whether any of the nine observation sites warrants being added to the list of compliance monitoring sites.

### **Procedures following Elevated Bacterial Levels (Exceedances)**

For the first three years of the summer dry-weather period and the first six years of the winter dry-weather period, EMD, LACDHS and LACSD will conduct accelerated testing 48 hours, and if necessary, 96 hours following the initial bacterial exceedance. All three indicators, and not just the exceeding indicator, will be tested during accelerated testing. For those sites monitored by the EMD, not all sites showing exceedances may be selected for accelerated sampling due to operational constraints. When this occurs, EMD will randomly select locations where accelerated sampling will be done. However, if a site is deemed chronically problematic by the responsible agencies within that jurisdictional group, the jurisdictional group may select that site for accelerated sampling.

## **Analytical Methodology**

Seawater samples will be tested for specific indicator bacteria concentrations whose presence indicates that enteric pathogenic microorganisms may also be present. These indicator bacteria (i.e., total coliforms, fecal coliforms or *E. coli*, and enterococcus) can be isolated and quantified by relatively simple microbiological techniques. Sampling and analytical procedures as specified in *Standard Methods for the Examination of Water and Wastewater*, 18<sup>th</sup> – 20<sup>th</sup> Edition (APHA 1992, 1998, respectively), EPA or Regional Board approved methods, will be used.

Quality assurance and quality control procedures will be conducted to confirm that the analytical data collected are valid and that they are comparable among all participating laboratories.

Data from several laboratories (agencies) will be utilized to comply with the monitoring requirements of the Santa Monica Bay Beaches Bacterial TMDLs. At a minimum, EMD, LACSD, and LACDHS will be involved. In order to ensure that these data are comparable relative to the level of quality, the participating laboratories will be requested to participate in inter-laboratory calibration exercises.

## **Data Management and Reporting**

Monthly data summary reports will be submitted to the Regional Board by the last day of each month for data collected during the previous month. Two agencies will submit the monthly reports on behalf of all responsible agencies: EMD on behalf of Jurisdictional Groups 1 through 6, 8, and 9; and LACSD on behalf of Jurisdictional Group 7. LACDHS will submit its data to EMD for compilation and submittal to the Regional Board. Copies of the monthly reports will be distributed to the lead agency of the appropriate jurisdictional group. If requested, the lead agency of each jurisdictional group will distribute the monthly reports to the responsible agencies within their respective jurisdictional group.